

**Commonwealth of Kentucky**  
**Division for Air Quality**  
**PERMIT STATEMENT OF BASIS**

PROPOSED TITLE V PERMIT NO. V-04-058 R1

OWLS HEAD ALLOYS, INCORPORATED

BOWLING GREEN, KY

MARCH 1, 2007

SANDRA COOKE, REVIEWER

PLANT I.D. # 021-227-00135

A.I. # 40313

**CURRENT STATUS:**

On December 12, 2004, the Division issued the proposed determination on the Title V permit for Owls Head Alloys, Incorporated in Bowling Green, Kentucky. This permit became final after 45 days. On June 28, 2005, the plant requested the registration of a new piece of equipment as an insignificant activity. The equipment, located outdoors in the scrap yard, is used to break apart the bales of compacted aluminum scrap brought to the facility for processing. The Division determined that although the predicted emissions for the bale breaker are very small, the equipment could not be considered an insignificant activity and the original Title V permit would therefore require a minor revision. However, an additional request from the source was received in May of 2006 to add two Rotary Furnaces and related equipment to the plant and modify certain sections/wording within the existing permit. Since the additions effectively double the source's output, a major permit revision was required. The two applications have therefore been combined in this one revision.

Investigation of baler shows that although the manufacturer lists it as a shredder, the purpose of the equipment is to break apart compacted masses of aluminum cans and scrap material. This allows for the inspection of the scrap and removal of steel and other items that could interfere with the chemistry of the final product. Pulling apart the materials also makes the removal of steel items, via overhead magnet, much easier and more thorough. The removal of steel materials is necessary as steel is not compatible with the aluminum melting process. The Division has determined that this piece of equipment is a bale breaker and therefore it is not subject to the requirements for shredders under 40 CFR 63, Subpart RRR.

In order to maintain the bale breaker status, the device must be used only for pulling apart bales, and the speed shall never increase above the current 25- rpm setting. Also, since it is located out of doors, there is a potential for fugitive emissions of particulate. Due to this, the equipment will be subject to the fugitive regulation, 401 KAR 63:010.

The addition of two more rotary furnaces, identical in make, model and capacity to the original two furnaces will double the facility's potential processing rates, but will not trigger any new permit requirements. The additions will be subject to same production-based mass emission limits as the original furnaces and will be required to meet the same testing, monitoring, recordkeeping, reporting, and control equipment operating conditions as well.

In conclusion, a thorough analysis has been made of all relevant information available that pertains to this source. The Division has concluded that compliance with the terms of the permit will ensure compliance with all air quality requirements. Therefore, it is the Division's determination that a proposed Title V permit revision should be issued as conditioned.

## **CREDIBLE EVIDENCE:**

This permit contains provisions that require that specific test methods, monitoring or recordkeeping be used as a demonstration of compliance with permit limits. On February 24, 1997, the U.S. EPA promulgated revisions to the following federal regulations: 40 CFR Part 51, Sec. 51.212; 40 CFR Part 52, Sec. 52.12; 40 CFR Part 52, Sec. 52.30; 40 CFR Part 60, Sec. 60.11 and 40 CFR Part 61, Sec. 61.12, that allow the use of credible evidence to establish compliance with applicable requirements. At the issuance of this permit, Kentucky has only adopted the provisions of 40 CFR Part 60, Sec. 60.11 and 40 CFR Part 61, Sec. 61.12 into its air quality regulations.

## **INDIVIDUAL UNIT, OPERATION OR ACTIVITY EMISSION AND OPERATING CAPS FOR REVISION:**

### **EP#9 Outside Scrap Bale Breaker**

Applicable Regulations: 401 KAR 63:010, Fugitive emissions.

Regulations that may appear to be applicable but are not: 40 CFR 63.1500, Subpart RRR, National Emission Standards for Hazardous Air Pollutants for Secondary Aluminum Production.

#### *Specific Operating Limitations:*

The permittee shall take reasonable precaution to prevent fugitive dust emissions from becoming airborne. Visible dust emissions beyond the property line are prohibited.

[401 KAR 63:010]

The device shall only be used to break apart bales of materials. The device shall not be used to re-size larger, individual pieces of scrap or used as a shredder. The speed of the device shall not increase above 25 rpms.

#### *Specific Emission Limitations:*

None

#### *Specific Monitoring Requirements:*

None

#### *Specific Recordkeeping and Reporting Requirements:*

The permittee shall keep monthly records of all precautions taken to limit fugitives, including, but not limited to, sweeping and water sprays used to control dust.

### **EPs#10, 11, 12, 13 New Rotary Furnaces And Dross/Salt Cake Handling**

Applicable Regulations (Furnaces): 40 CFR part 63, Subpart RRR-National Emission Standards for Hazardous Air Pollutants for Secondary Aluminum Production

401 KAR 59:010, New process operations

Applicable Regulations (Handling): 401 KAR 63:010, Fugitive emissions

401 KAR 53:010, Ambient air quality standards

401 KAR 59:010, New process operations

Emission Point	Pollutant	Potential (tn/yr)	Controlled (tn/yr)
10 (Rotary Furnace)	PM	113	0.06
	D/F	1.19E-05	1.19E-05
	HCL	1029.31	10.29
	NOx	6.57	6.57
	CO	5.52	5.52
	SO2	0.04	0.04
	VOC	0.36	0.36

Emission Point	Pollutant	Potential (tn/yr)	Controlled (tn/yr)
10 (Rotary Furnace) Continued	Benzene	1.38E-04	1.38E-04
	Formaldehyde	4.93E-03	4.93E-03
	Hexane Naphthalene	1.18E-01	1.18E-01
	Toluene	2.23E-04	2.23E-04
	Lead	3.29E-05	3.29E-05
12 (Dross&SaltCakeHandling/Storage)	PM	2.05E-01	1.02E-04
	PM10	1.02E-01	5.12E-05
11 (Rotary Furnace)	PM	113	0.06
	D/F	1.19E-05	1.19E-05
	HCL	1029.31	10.29
	NOx	6.57	6.57
	CO	5.52	5.52
	SO2	0.04	0.04
	VOC	0.36	0.36
	Benzene	1.38E-04	1.38E-04
	Formaldehyde	4.93E-03	4.93E-03
	Hexane Naphthalene	1.18E-01	1.18E-01
	Toluene	2.23E-04	2.23E-04
	Lead	3.29E-05	3.29E-05
13 (Dross&Salt Cake Handling/Storage)	PM	2.05E-01	1.02E-04
	PM10	1.02E-01	5.12E-05

## PUBLIC COMMENTS

Public notice of the draft of this permit (V-04-058 R1) was published on December 30, 2006 in the Bowling Green Daily News. No comments were received during the 30-day public comment period, which ended on January 29, 2007.